

# Life On The Edge

## Project Learning Tree Activity #88

### Program of Studies

#### Science:

- S-4-SI-1 (ask simple scientific questions that can be answered through observations combined with scientific information)
- S-4-SI-2 (use simple equipment (e.g., plant lights), tools (e.g., rulers, thermometers), skills (e.g., describing), technology (e.g., electronic media), and mathematics in scientific investigations.)
- S-4-SI-3 (use evidence (e.g., descriptions) from simple scientific investigations and scientific knowledge to develop reasonable explanations.)
- S-4-SI-4 (Students will design and conduct different kinds of simple scientific investigations.)
- S-4-SI-5 (communicate (e.g., graph, write) designs, procedures, and results of scientific investigations.)
- S-4-SI-6 (Students will review and ask questions about scientific investigations and explanations of other students.)
- S-4-LS-1 ((Students will understand that organisms have basic needs (e.g., air, water, nutrients, light) and can only survive when these needs are met.)
- S-4-LS-2 (behavior of individual organisms is influenced by stimuli (e.g., touch, hunger).)
- S-5-SI-1 (use simple equipment (e.g., plant lights), tools (e.g., rulers, thermometers), skills (e.g., describing), technology (e.g., electronic media), and mathematics in scientific investigations.)
- S-5-SI-2 (use appropriate equipment (e.g., watches), tools (e.g., rain gauges), techniques (e.g., classifying), technology (e.g., calculators), and mathematics in scientific investigations.)
- S-5-SI-3 (use evidence (e.g., classifications), logic, and scientific knowledge to develop scientific explanations.)
- S-5-SI-4 (Students will design and conduct different kinds of scientific investigations to answer different kinds of questions.)
- S-5-SI-5 (communicate (e.g., draw, speak) designs, procedures, and results of scientific investigations.)
- S-5-SI-6 (review and analyze scientific investigations and explanations of other students.)
- S-5-LS-1 (Students will recognize the relationship between structure and function at all levels of organization (e.g., organ systems, whole organisms, ecosystems).)
- S-5-AC-3 (Students will recognize how science is used to understand changes in populations, issues related to resources, and changes in environments.)
- S-6-SI-1 (identify and refine questions that can be answered through scientific investigations combined with scientific information.)
- S-6-SI-2 (use appropriate equipment (e.g., binoculars), tools (e.g., beakers), techniques (e.g. ordering), technology (e.g., calculators), and mathematics in scientific investigations.)

- S-6-SI-3 (use evidence (e.g., orderings, organizations), logic, and scientific knowledge to develop scientific explanations.)
- S-6-SI-4 (Students will design and conduct different kinds of scientific investigations to answer different kinds of questions.)
- S-6-SI-5 (communicate (e.g., speak, write) designs, procedures, and results of scientific investigations.)
- S-6-SI-6 (Students will review and analyze scientific investigations and explanations of other students.)
- S-6-LS-5 (Students will investigate factors (e.g., resources, light, water) that affect the number of organisms an ecosystem can support.)
- S-6-AC-2 (Students will recognize how science is used to understand changes in populations, issues related to resources, and changes in environments.)
- S-7-SI-1 (Students will identify and refine questions that can be answered through scientific investigations combined with scientific information.)
- S-7-SI-2 (Students will use appropriate equipment (e.g., spring scales), tools (e.g., spatulas), techniques (e.g., measuring), technology (e.g., computers), and mathematics in scientific investigations.)
- S-7-SI-3 (Students will use evidence (e.g., measurements), logic, and scientific knowledge to develop scientific explanations.)
- S-7-SI-4 (Students will design and conduct different kinds of scientific investigations to answer different kinds of questions.)
- S-7-SI-5 (Students will communicate (e.g., write) designs, procedures, and results of scientific investigations.)
- S-7-SI-6 (Students will review and analyze scientific investigations and explanations of other students.)
- S-8-SI-1 (identify and refine questions that can be answered through scientific investigations combined with scientific information.)
- S-8-SI-2 (Students will use appropriate equipment (e.g., barometers), tools (e.g., meter sticks), techniques (e.g., computer skills), technology (e.g., computers), and mathematics in scientific investigations.)
- S-8-SI-3 (use evidence (e.g., computer models), logic, and scientific knowledge to develop scientific explanations.)
- S-8-SI-4 (design and conduct different kinds of scientific investigations to answer different kinds of questions.)
- S-8-SI-5 (communicate (e.g., write, graph) designs, procedures, and results of scientific investigations.)
- S-8-SI-6 (Students will analyze diversity and adaptations (e.g., changes in structure, behaviors, or physiology.)
- S-8-LS-4 (investigate and analyze populations and ecosystems.)

#### English Language Arts:

- ELA-P-R-28 (Students will summarize what happened in a story by telling and/or drawing.)

## Core Content

### Science:

- SC-E-SI-1 (ask simple scientific questions that can be investigated through observations combined with scientific information)
- SC-E-SI-2 (use simple equipment (e.g., magnifiers, magnets), tools (e.g., metric rulers, thermometers), skills (e.g., classifying, predicting), technology (e.g., electronic media, calculators, World Wide Web), and mathematics in scientific investigations.)
- SC-E-SI-3 (use evidence (e.g., observations, data) from simple scientific investigations and scientific knowledge to develop reasonable explanations.)
- SC-E-SI-4 (design and conduct simple scientific investigations.)
- SC-E-SI-5 (communicate (e.g., draw, graph, write) designs, procedures, observations, and results of scientific investigations.)
- SC-E-SI-6 (review and ask questions about scientific investigations and explanations of other students)
- SC-E-3.2.1 (Plants and animals have life cycles that include the beginning of life, growth and development, reproduction, and death. The details of a life cycle are different for different organisms.)
- SC-M-SI-1 (refine and refocus questions that can be answered through scientific investigation combined with scientific information)
- SC-M-SI-2 (use appropriate equipment, tools, techniques, technology, and mathematics to gather, analyze, and interpret scientific data.)
- SC-M-SI-3 (use evidence (e.g., computer models), logic, and scientific knowledge to develop scientific explanations.)
- SC-M-SI-4 (design and conduct scientific investigations.)
- SC-M-SI-5 (communicate (e.g., write, graph) designs, procedures, observations, and results of scientific investigations.)
- SC-M-SI-6 (review and analyze scientific investigations and explanations of other students.)
- SC-M-3.4.1 (Biological change over time accounts for the diversity of species developed through gradual processes over many generations. Biological adaptations include changes in structures, behaviors, or physiology that enhance survival and reproductive success in a particular environment.)
- SC-M-3.4.2 (Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival. Extinction of species is common; most of the species that have lived on Earth no longer exist.)
- SC-M-3.5.1 (A population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem.)
- SC-M-3.5.4 (The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.)

### Reading:

- RD-E-1.0.6 (Explain the meaning of a passage taken from texts appropriate for elementary school students.)